NC/QC/YD/2019-20/W4-LBS-BC6 **Date: 19-02-2020**

1.TEST REPORT ON BITUMINOUS MIXES :
(BITUMEN EXTRACTION TEST & GRADATION TEST)

Sub: To determine the percentage of bitumen and gradation for BC mix sample.
{Project*: Improvements of Roads And Drains At Lal Bahadur Shastri Slum And Surrounding Area In Ward No.04.}
Ref.: Material testing/PMC/19-20,
Report Required for: Assistant Executive Engineer,
Yelahanka New Town Sub Division,
BBMP, Bangalore.
Name of the Agency/Contractor*: M/s KRIDL, Bangalore.

TEST RESULTS

A. Type of Construction : **Bituminous Concrete**

1. The bitumen content obtained after subjecting the sample for Bitumen Extraction test = **5.44 %**

2. **Gradation Test**

TABLE 1.1

Sieve Size, mm	Percent by Weight passing the Sieve from the sample supplied (Obtained Gradation)	Gradation requirement as per Table 500-17 of MORTH Specfications-2013 BC (Grading - 2)
19.0	100	100
13.2	98.45	90-100
9.5	85.15	70-88
4.75	68.30	53-71
2.36	55.40	42-58
1.18	42.05	34-48
0.600	36.20	26-38
0.300	21.50	18-28
0.150	19.35	12-20
0.075	8.70	4-10

NEWZEN CONSULTANT * BANGALORE *

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ಯಲಹಂಕ ಉಪನಗರ ಉಪವಿಭಾಗ,
ಬಿ.ಬಿ.ಎಂ.ಪಿ, ಬೆಂಗಳೂರು-106

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NC/QC/YD/2019-20/W4-LBS-BC7 Date: 19-02-2020

1.TEST REPORT ON BITUMINOUS MIXES :
(BITUMEN EXTRACTION TEST & GRADATION TEST)

Sub: To determine the percentage of bitumen and gradation for BC mix sample.
{Project*: Improvements of Roads And Drains At Lal Bahadur Shastri Slum And Surrounding Area In Ward No.04.}
Ref.: Material testing/PMC/19-20,
Report Required for: Assistant Executive Engineer,
Yelahanka New Town Sub Division,
BBMP, Bangalore.
Name of the Agency/Contractor*: M/s KRIDL, Bangalore.

TEST RESULTS

A. Type of Construction : **Bituminous Concrete**
1. The bitumen content obtained after subjecting the sample for Bitumen Extraction test = **5.43 %**

2. **Gradation Test**
TABLE 1.1

Sieve Size, mm	Percent by Weight passing the Sieve from the sample supplied (Obtained Gradation)	Gradation requirement as per Table 500-17 of MORTH Specfications-2013 BC (Grading - 2)
19.0	100	100
13.2	98.45	90-100
9.5	85.15	70-88
4.75	68.35	53-71
2.36	54.25	42-58
1.18	41.60	34-48
0.600	32.25	26-38
0.300	23.15	18-28
0.150	17.45	12-20
0.075	8.70	4-10

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NC/QC/YD/2019-20/W4-LBS-BC5

Date: 19-02-2020

1.TEST REPORT ON BITUMINOUS MIXES :
(BITUMEN EXTRACTION TEST & GRADATION TEST)

Sub: To determine the percentage of bitumen and gradation for BC mix sample.
{Project*: Improvements of Roads And Drains At Lal Bahadur Shastri Slum And Surrounding Area In Ward No.04.}
Ref.: Material testing/PMC/19-20,
Report Required for: Assistant Executive Engineer,
Yelahanka New Town Sub Division,
BBMP, Bangalore.
Name of the Agency/Contractor*: M/s KRIDL, Bangalore.

TEST RESULTS

A. Type of Construction : **Bituminous Concrete**
1. The bitumen content obtained after subjecting the sample for Bitumen Extraction test = **5.43%**

2. **Gradation Test**
TABLE 1.1

Sieve Size, mm	Percent by Weight passing the Sieve from the sample supplied (Obtained Gradation)	Gradation requirement as per Table 500-17 of MORTH Specfications-2013 BC (Grading - 2)
19.0	100	100
13.2	95.80	90-100
9.5	86.45	70-88
4.75	63.20	53-71
2.36	56.70	42-58
1.18	42.35	34-48
0.600	34.60	26-38
0.300	23.80	18-28
0.150	17.35	12-20
0.075	7.45	4-10

NEWZEN CONSULTANT BANGALORE

Page No. 1/1

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NC/QC/YD/2019-20/W4-LBS-BS3

Date: 19-02-2020

1.TEST REPORT ON BITUMINOUS MIXES :
(STABILITY OF BITUMINOUS MIX)

Sub: To determine the stability of bituminous mix for BC mix sample.
{Project*: Improvements of Roads And Drains At Lal Bahadur Shastri Slum And Surrounding Area In Ward No.04.}
Ref.: Material testing/PMC/19-20,
Report Required for: Assistant Executive Engineer,
Yelahanka New Town Sub Division,
BBMP, Bangalore.
Name of the Agency/Contractor*: M/s KRIDL, Bangalore.

TEST RESULTS

Table 1: Properties of BC (Gr-2) Mix

Sl. No.	Test Property	*Test results obtained by Marshall method	Requirements of Bituminous Concrete, Grade-2 as per M.o.R.T&H (V Revision)-2013 Specifications
1	Marshall Stability (75 blows) (At 60°C), kgs.	1358	900
2	Marshall Flow at 60°C, mm.	3.42	2.0 - 4.0

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ಕರ್ನಾಟಕ ರಾಜ್ಯ ಸಣ್ಣ ಕೈಗಾರಿಕೆಗಳ ಅಭಿವೃದ್ಧಿ ನಿಗಮ ನಿಯಮಿತದ ಯಲಹಂಕ ಉಪನಗರ ಉಪವಿಭಾಗ, ಕೆ.ಎಸ್.ಐ.ಡಿ.ಸಿ. ಬೆಂಗಳೂರು-106

Page No. 1/1

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NC/QC/YD/2019-20/W4-LBS-CB1 Date: 14-02-2020

1. TEST REPORT ON COARSE AGGREGATE:

Sub: Testing of Coarse Aggregate used in Bituminous Concrete.
{Project*: Improvements of Roads And Drains At Lal Bahadur Shastri Slum And Surrounding Area In Ward No.04.}
Ref.: Material testing/PMC/19-20,
Report Required for: Assistant Executive Engineer,
Yelahanka New Town Sub Division,
BBMP, Bangalore.
Name of the Agency/Contractor*: M/s KRIDL, Bangalore.

TABLE 1.1 ;

SL No	Test conducted	Test Results	Tests Conforms to IS 2386(Part I to IV)– 1963 (Reaffirmed on 2002) & Requirements as per IS:383-1970 & M.o.R.T.H Specification, V Revision -2013.
1.	Aggregate Impact Value	22.89 %	Not more than 24.00 %
2.	Combined Flakiness and Elongation index, %	27.96%	Not more than 35.0 %
3.	Water absorption, %	0.43%	Not more than 2.0 %
4.	Specific gravity	2.62	-------
5.	Soundness	5.36%	Max. 12 % in Sodium Sulphate

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Page No. 1/1,

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NC/QC/YD/2019-20/W4-LBS-BS2

Date: 18-02-2020

1.TEST REPORT ON BITUMINOUS MIXES :
(STABILITY OF BITUMINOUS MIX)

Sub: To determine the stability of bituminous mix for BC mix sample.
{Project*: Improvements of Roads And Drains At Lal Bahadur Shastri Slum And Surrounding Area In Ward No.04.}
Ref.: Material testing/PMC/19-20,
Report Required for: Assistant Executive Engineer,
Yelahanka New Town Sub Division,
BBMP, Bangalore.
Name of the Agency/Contractor*: M/s KRIDL, Bangalore.

TEST RESULTS

Table 1: Properties of BC (Gr-2) Mix

Sl. No.	Test Property	*Test results obtained by Marshall method	Requirements of Bituminous Concrete, Grade-2 as per M.o.R.T&H (V Revision)-2013 Specifications
1	Marshall Stability (75 blows) (At 60°C), kgs.	1348	900
2	Marshall Flow at 60°C, mm.	3.32	2.0 - 4.0

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NC/QC/YD/2019-20/W4-LBS-DBM1 Date: 12-02-2020

1.TEST REPORT ON BITUMINOUS MIXES :
(BITUMEN EXTRACTION TEST & GRADATION TEST)

Sub: To determine the percentage of bitumen and gradation for DBM mix sample.
{Project*: Improvements of Roads And Drains At Lal Bahadur Shastri Slum And Surrounding Area In Ward No.04.}
Ref.: Material testing/PMC/19-20,
Report Required for: Assistant Executive Engineer,
Yelahanka New Town Sub Division,
BBMP, Bangalore.
Name of the Agency/Contractor*: M/s KRIDL, Bangalore.

TEST RESULTS

A. Type of Construction : **Dense Graded Bituminous Macadam.**
1. The bitumen content obtained after subjecting the sample for Bitumen Extraction test = **4.52 %**

2. **Gradation Test**
TABLE 1.1

Sieve Size, mm	Percent by Weight passing the Sieve from the sample supplied (Obtained Gradation)	Gradation requirement as per Table 500-10 of MORTH Specfications-2013 DBM (Grading - 2)
37.5	100	100
26.5	97.80	90-100
19.0	88.10	71-95
13.20	64.45	56-80
4.75	43.70	38-54
2.36	34.05	28-42
0.300	18.90	7-21
0.075	6.45	2-8

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Page No. 1/1

KIRAN. R
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NC/QC/YD/2019-20/W4-LBS-DBM2

Date: 12-02-2020

1.TEST REPORT ON BITUMINOUS MIXES :
(BITUMEN EXTRACTION TEST & GRADATION TEST)

Sub: To determine the percentage of bitumen and gradation for DBM mix sample.
{Project*: Improvements of Roads And Drains At Lal Bahadur Shastri Slum And Surrounding Area In Ward No.04.}
Ref.: Material testing/PMC/19-20,
Report Required for: Assistant Executive Engineer,
Yelahanka New Town Sub Division,
BBMP, Bangalore.
Name of the Agency/Contractor*: M/s KRIDL, Bangalore.

TEST RESULTS

A. Type of Construction : **Dense Graded Bituminous Macadam.**
1. The bitumen content obtained after subjecting the sample for Bitumen Extraction test = **4.53 %**

2. **Gradation Test**
TABLE 1.1

Sieve Size, mm	Percent by Weight passing the Sieve from the sample supplied (Obtained Gradation)	Gradation requirement as per Table 500-10 of MORTH Specfications-2013 DBM (Grading - 2)
37.5	100	100
26.5	96.35	90-100
19.0	86.75	71-95
13.20	73.40	56-80
4.75	48.15	38-54
2.36	34.45	28-42
0.300	18.65	7-21
0.075	7.15	2-8

ಪ್ರಯೋಗಾಲಯ ಕಾರ್ಯನಿರ್ವಾಹಕ ಅಭಿಯಂತರರು
ಯಲಹಂಕ ಉಪನಗರ ಉಪವಿಭಾಗ,
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Page No. 1/1

KIRAN. R
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NC/QC/YD/2019-20/W4-LBS-CB4A

Date: 02-01-2020

1. TEST REPORT ON CEMENT CONCRETE CUBES:

Sub: Testing of Concrete Cubes (for 28days Compressive Strength).
{Project*: Improvements of Roads And Drains At Lal Bahadur Shastri Slum And Surrounding Area In Ward No.04.}
Ref.: Material testing/PMC/19-20,
Report Required for: Assistant Executive Engineer,
Yelahanka New Town Sub Division,
BBMP, Bangalore.
Name of the Agency/Contractor*: M/s KRIDL, Bangalore.

RESULTS OF COMPRESSIVE STRENGTH ON CEMENT CONCRETE CUBE SPECIMENS

Dimensions of Specimen : 150 X 150 X 150mm
Grade of Concrete* : M_{30}

TABLE 1.1:

Sl No	Location/ Identification*	Date of Casting*	Date of Testing	Age in Days	C/S Area in mm^2	Maximum Load in K.N	Compressive Strength (N/mm^2)	Avg. Value
1	001	05-12-19	02-01-20	29	22500	730	32.44	32.81
	002	"	"	"	"	745	33.11	
	003	"	"	"	"	740	32.89	

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Page No. 1/1,

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NEW TECHNOLOGIES TO INNOVATE

NC/QC/YD/2019-20/W4-LBS-W1

Date: 03-02-2020

TEST REPORT ON WET MIX MACADAM MIX (GRADATION TEST)

Sub: To conduct Gradation test on Wet Mix Macadam (WMM) Mix.
{Project*: Improvements of Roads And Drains At Lal Bahadur Shastri Slum And Surrounding Area In Ward No.04.}
Ref.: Material testing/PMC/19-20,
Report Required for: Assistant Executive Engineer,
Yelahanka New Town Sub Division,
BBMP, Bangalore.
Name of the Agency/Contractor*: M/s KRIDL, Bangalore.

TEST RESULTS

1. Gradation Test:

TABLE 1.1

Sieve Size mm	Percent by Weight passing the Sieve from the sample supplied (Obtained Gradation)	Specified Limits as per MoRTH Specifications, V Revision-2013
53.00	100.00	100
45.00	97.20	95-100
26.50	---	-
22.40	78.35	60-80
11.20	53.25	40-60
4.75	35.10	25-40
2.36	23.75	15-30
0.600	17.10	8-22
0.075	3.55	0-5

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ಯಲಹಂಕ ಉಪನಗರ ಉಪವಿಭಾಗ,
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NC/QC/YD/2019-20/W4-LBS-W2

Date: 05-02-2020

TEST REPORT ON WET MIX MACADAM MIX (GRADATION TEST)

Sub: To conduct Gradation test on Wet Mix Macadam (WMM) Mix.
{Project*: Improvements of Roads And Drains At Lal Bahadur Shastri Slum And Surrounding Area In Ward No.04.}
Ref.: Material testing/PMC/19-20,
Report Required for: Assistant Executive Engineer,
Yelahanka New Town Sub Division,
BBMP, Bangalore.
Name of the Agency/Contractor*: M/s KRIDL, Bangalore.

1. Gradation Test: **TEST RESULTS**

TABLE 1.1

Sieve Size mm	Percent by Weight passing the Sieve from the sample supplied (Obtained Gradation)	Specified Limits as per MoRTH Specifications, V Revision-2013
53.00	100.00	100
45.00	98.45	95-100
26.50	---	-
22.40	74.20	60-80
11.20	52.65	40-60
4.75	34.15	25-40
2.36	24.75	15-30
0.600	17.90	8-22
0.075	4.25	0-5

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ಯಲಹಂಕ ಉಪನಗರ ಉಪವಿಭಾಗ,
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Date: 07-02-2020

TABLE 1.2

SL No	Test conducted	Test Results	Tests Conforms to IS 2386(Part I to IV)– 1963 (Reaffirmed on 2002) & Requirements as per IS:383-1970 & M.o.R.T.H Specification, V Revision -2013.
1.	Aggregate Impact Value	**25.48%**	Not more than 30.00 %
2.	Combined Flakiness and Elongation index, %	**28.06 %**	Not more than 35.0 %
3.	Water absorption, %	**0.43 %**	Not more than 2.0 %
4.	Plasticity Index, %	**NP**	Not more than 6.0 %

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರ
ಯೋಜನೆಯ ಉಪವಿಭಾಗ
ಪಿ.ಡಬ್ಲ್ಯೂ.ಡಿ. ಬೆಂಗಳೂರು-10

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NC/QC/YD/2019-20/W4-LBS-CB4

Date: 12-12-2019

1. TEST REPORT ON CEMENT CONCRETE CUBES:

Sub: Testing of Concrete Cubes (for 07days Compressive Strength).
{Project*: Improvements of Roads And Drains At Lal Bahadur Shastri Slum And Surrounding Area In Ward No.04.}
Ref.: Material testing/PMC/19-20,
Report Required for: Assistant Executive Engineer,
Yelahanka New Town Sub Division,
BBMP, Bangalore.
Name of the Agency/Contractor*: M/s KRIDL, Bangalore.

RESULTS OF COMPRESSIVE STRENGTH ON CEMENT CONCRETE CUBE SPECIMENS

Dimensions of Specimen : 150 X 150 X 150mm
Grade of Concrete* : M_{30}

TABLE 1.1:

Sl No	Location/ Identification*	Date of Casting*	Date of Testing	Age in Days	C/S Area in mm^2	Maximum Load in K.N	Compressive Strength (N/mm^2)	Avg. Value
1	001	05-12-19	12-12-19	07	22500	525	23.33	**23.56**
	002	"	"	"	"	530	23.56	
	003	"	"	"	"	535	23.78	

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NEWZEN CONSULTANT * BANGALORE *

Page No. 1/1,

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NC/QC/YD/2019-20/W4-LBS-CB6

Date: 13-12-2019

1. TEST REPORT ON CEMENT CONCRETE CUBES:

Sub: Testing of Concrete Cubes (for 07days Compressive Strength).
{Project*: Improvements of Roads And Drains At Lal Bahadur Shastri Slum And Surrounding Area In Ward No.04.}
Ref.: Material testing/PMC/19-20,
Report Required for: Assistant Executive Engineer,
Yelahanka New Town Sub Division,
BBMP, Bangalore.
Name of the Agency/Contractor*: M/s KRIDL, Bangalore.

RESULTS OF COMPRESSIVE STRENGTH ON CEMENT CONCRETE CUBE SPECIMENS

Dimensions of Specimen : 150 X 150 X 150mm
Grade of Concrete* : M_{30}

TABLE 1.1:

Sl No	Location/ Identification*	Date of Casting*	Date of Testing	Age in Days	C/S Area in mm^2	Maximum Load in K.N	Compressive Strength (N/mm^2)	Avg. Value
1	001	06-12-19	13-12-19	07	22500	520	23.11	23.63
	002	"	"	"	"	530	23.56	
	003	"	"	"	"	545	24.22	

ಸಹಾಯಕ ಕಾರ್ಯನಿರ್ವಾಹಕ ಅಭಿಯಂತರರ ಯಲಹಂಕ ಉಪನಗರ ಉಪವಿಭಾಗ, ಬಿ.ಬಿ.ಎಂ.ಪಿ. ಬೆಂಗಳೂರು-106

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NC/QC/YD/2019-20/W4-LBS-CB2A

Date: 30-12-2019

1. TEST REPORT ON CEMENT CONCRETE CUBES:

Sub: Testing of Concrete Cubes (for 28days Compressive Strength).
{Project*: Improvements of Roads And Drains At Lal Bahadur Shastri Slum And Surrounding Area In Ward No.04.}
Ref.: Material testing/PMC/19-20,
Report Required for: Assistant Executive Engineer,
Yelahanka New Town Sub Division,
BBMP, Bangalore.
Name of the Agency/Contractor*: M/s KRIDL, Bangalore.

RESULTS OF COMPRESSIVE STRENGTH ON CEMENT CONCRETE CUBE SPECIMENS

Dimensions of Specimen : 150 X 150 X 150mm
Grade of Concrete* : M_{30}

TABLE 1.1:

Sl No	Location/ Identification*	Date of Casting*	Date of Testing	Age in Days	C/S Area in mm^2	Maximum Load in K.N	Compressive Strength (N/mm^2)	Avg. Value
1	001	02-12-19	30-12-19	29	22500	730	32.44	32.15
	002	"	"	"	"	725	32.22	
	003	"	"	"	"	715	31.78	

ಸಹಾಯಕ ಕಾರ್ಯನಿರ್ವಾಹಕ ಅಭಿಯಂತರರು
ಯಲಹಂಕ ಉಪನಗರ ಉಪವಿಭಾಗ.
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EMAIL:newzen576@gmail...

NC/QC/YD/2019-20/W4-LBS-C1 Date: 05-11-2019

1. TEST REPORT ON CEMENT:

Sub: Testing of 53 Grade Cement Sample (IS 12269-1987).
{Project*: Improvements of Roads And Drains At Lal Bahadur Shastri Slum And Surrounding Area In Ward No.04.}
Ref.: Material testing/PMC/19-20,
Report Required for: Assistant Executive Engineer,
Yelahanka New Town Sub Division,
BBMP, Bangalore.
Name of the Agency/Contractor*: M/s KRIDL, Bangalore.

PHYSICAL TESTS ON CEMENT

Grade * : 53,
Type * : O.P.C

TABLE 1.1:

SL No	Name of Test	Test Results	Requirements as per IS 8112-1989
1	Initial setting time	156min	Shall not be less than 30 min
2	Final setting time	270min	Shall not be more than 600 min
3	Fineness (by dry sieving on IS 90 micron sieve)	2.06 %	Not to exceed 10.0%
4	Soundness test(by Le-Chatelier's method)	2.12 mm	Shall not be more than 10 mm
5	Compressive strength a) 3 days (average of three results)	28.64 N/Sq mm	Shall not be less than 27 N/Sqmm

ಸಹಾಯಕ ಕಾರ್ಯನಿರ್ವಾಹಕ ಅಭಿಯಂತರರು
ಯಲಹಂಕ ಉಪನಗರ ಉಪವಿಭಾಗ,
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NC/QC/YD/2019-20/W4-LBS-CA1

Date: 05-11-2019

1. TESTING OF COARSE AGGREGATES (20 mm):

Sub: Testing of Construction Materials.
{Project*: Improvements of Roads And Drains At Lal Bahadur Shastri Slum And Surrounding Area In Ward No.04.}
Ref.: Material testing/PMC/19-20,
Report Required for: Assistant Executive Engineer,
Yelahanka New Town Sub Division,
BBMP, Bangalore.
Name of the Agency/Contractor*: M/s KRIDL, Bangalore.

Table - 1.1 : SIEVE ANALYSIS :

IS Sieve Size, mm	Percentage passing	Requirements as per IS 383-1970 (Reaffirmed on 2002) % Passing	
	20 mm Sample	Single size	Graded
40 mm	100.00	100 00	100.00
20 mm	98.40	85-100	90 - 100
10 mm	45.65	0 - 20	25 - 55
4.75 mm	3.80	0 - 5	0 - 10

TABLE 1.2 .

SL No	Test conducted	Results	Requirements as per IS 383-1970 & Tests Conforms to IS 2386(Part I to IV) – 1963 (Reaffirmed on 2002)
1.	Flakiness Index	25.89%	Not to exceed 25 %
2.	Crushing value	27.43 %	Not to exceed 45 % for concrete other than for wearing surfaces and 30% for concrete for wearing surfaces

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NC/QC/YD/2019-20/W4-LBS-CB1A

Date: 11-12-2020

1. TEST REPORT ON CEMENT CONCRETE CUBES:

Sub: Testing of Concrete Cubes (for 28days Compressive Strength).
{Project*: Improvements of Roads And Drains At Lal Bahadur Shastri Slum And Surrounding Area In Ward No.04.}
Ref.: Material testing/PMC/19-20,
Report Required for: Assistant Executive Engineer,
Yelahanka New Town Sub Division,
BBMP, Bangalore.
Name of the Agency/Contractor*: M/s KRIDL, Bangalore.

RESULTS OF COMPRESSIVE STRENGTH ON CEMENT CONCRETE CUBE SPECIMENS

Dimensions of Specimen : 150 X 150 X 150mm
Grade of Concrete* : M_{15}

TABLE 1.1:

Sl No	Location/ Identification*	Date of Casting*	Date of Testing	Age in Days	C/S Area in mm^2	Maximum Load in K.N	Compressive Strength (N/mm^2)	Avg. Value
1	001	14-11-19	11-12-19	29	22500	405	18.00	18.37
	002	"	"	"	"	420	18.67	
	003	"	"	"	"	415	18.44	

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NC/QC/YD/2019-20/W4-LBS-C2

Date: 18-11-2019

1. TEST REPORT ON CEMENT:

Sub: Testing of 53 Grade Cement Sample (IS 12269-1987).
{Project*: Improvements of Roads And Drains At Lal Bahadur Shastri Slum And Surrounding Area In Ward No.04.}
Ref.: Material testing/PMC/19-20,
Report Required for: Assistant Executive Engineer,
Yelahanka New Town Sub Division,
BBMP, Bangalore.
Name of the Agency/Contractor*: M/s KRIDL, Bangalore.

PHYSICAL TESTS ON CEMENT

Grade * : 53,
Type * : O.P.C

TABLE 1.1:

SL No	Name of Test	Test Results	Requirements as per IS 8112-1989
1	Initial setting time	145 min	Shall not be less than 30 min
2	Final setting time	270 min	Shall not be more than 600 min
3	Fineness (by dry sieving on IS 90 micron sieve)	2.09 %	Not to exceed 10.0%
4	Soundness test(by Le-Chatelier's method)	2.15 mm	Shall not be more than 10 mm
5	Compressive strength a) 3 days (average of three results)	28.46 N/Sq mm	Shall not be less than 27 N/Sqmm

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NC/QC/YD/2019-20/W4-LBS-C3

Date: 21-11-2019

1. TEST REPORT ON CEMENT:

Sub: Testing of 53 Grade Cement Sample (IS 12269-1987).
{Project*: Improvements of Roads And Drains At Lal Bahadur Shastri Slum And Surrounding Area In Ward No.04.}
Ref.: Material testing/PMC/19-20,
Report Required for: Assistant Executive Engineer,
Yelahanka New Town Sub Division,
BBMP, Bangalore.
Name of the Agency/Contractor*: M/s KRIDL, Bangalore.

PHYSICAL TESTS ON CEMENT

Grade * : 53,
Type * : O.P.C

TABLE 1.1:

SL No	Name of Test	Test Results	Requirements as per IS 8112-1989
1	Initial setting time	152 min	Shall not be less than 30 min
2	Final setting time	265 min	Shall not be more than 600 min
3	Fineness (by dry sieving on IS 90 micron sieve)	2.16 %	Not to exceed 10.0%
4	Soundness test(by Le-Chatelier's method)	2.10 mm	Shall not be more than 10 mm
5	Compressive strength b) 3 days (average of three results)	28.86 N/Sq mm	Shall not be less than 27 N/Sqmm

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NC/QC/YD/2019-20/W4-LBS-PCC2

Date: 21-11-2019

1. TESTING OF COARSE AND FINE AGGREGATES:

Sub: Testing of Coarse and Fine aggregates to be used for bed concrete.
{Project*: Improvements of Roads And Drains At Lal Bahadur Shastri Slum And Surrounding Area In Ward No.04.}
Ref.: Material testing/PMC/19-20,
Report Required for: Assistant Executive Engineer,
Yelahanka New Town Sub Division,
BBMP, Bangalore.
Name of the Agency/Contractor*: M/s KRIDL, Bangalore.

1. COARSE AGGRGATES TABLE - SIEVE ANALYSIS:

IS Sieve Size, mm	Percentage passing	Requirements as per IS 383-1970 (Reaffirmed on 2007) % Passing	
	40 mm Sample	Single size	Graded
40mm	100.00	85-100	90 – 100
20mm	64.50	0 -20	30- 70
10mm	27.35	0 -5	10- 35
4.75mm	4.05	------	0- 5

2. FINE AGGREGATES TABLE - SIEVE ANALYSIS

IS Sieve Size, mm	Percentage Passing	Specification as Per IS: 383-1970(Reaffirmed 2002) Percentage Passing			Remarks
		Zone-I	Zone-II	Zone -III	
04.75	98.45	90-100	90-100	90-100	The Sample Conforms to Grading **Zone-II**
02.36	85.20	60-95	75-100	85-100	
01.18	74.65	30-70	55-90	75-100	
600.mic	56.35	15-34	35-59	60-79	
300.mic	17.60	5-20	8-30	12-40	
150.mic	5.90	0-10	0-10	0-10	

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NC/QC/YD/2019-20/W4-LBS-CB2

Date: 09-12-2019

1. TEST REPORT ON CEMENT CONCRETE CUBES:

Sub: Testing of Concrete Cubes (for 07days Compressive Strength).
{Project*: Improvements of Roads And Drains At Lal Bahadur Shastri Slum And Surrounding Area In Ward No.04.}
Ref.: Material testing/PMC/19-20,
Report Required for: Assistant Executive Engineer,
Yelahanka New Town Sub Division,
BBMP, Bangalore.
Name of the Agency/Contractor*: M/s KRIDL, Bangalore.

RESULTS OF COMPRESSIVE STRENGTH ON CEMENT CONCRETE CUBE SPECIMENS

Dimensions of Specimen : 150 X 150 X 150mm
Grade of Concrete* : M_{30}

TABLE 1.1:

Sl No	Location/ Identification*	Date of Casting*	Date of Testing	Age in Days	C/S Area in mm^2	Maximum Load in K.N	Compressive Strength (N/mm^2)	Avg. Value
1	001	02-12-19	09-12-19	07	22500	520	23.11	**23.19**
	002	"	"	"	"	530	23.56	
	003	"	"	"	"	515	22.89	

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NC/QC/YD/2019-20/W4-LBS-CB3 Date: 09-12-2019

1. TEST REPORT ON CEMENT CONCRETE CUBES:

Sub: Testing of Concrete Cubes (for 07days Compressive Strength).
{Project*: Improvements of Roads And Drains At Lal Bahadur Shastri Slum And Surrounding Area In Ward No.04.}
Ref.: Material testing/PMC/19-20,
Report Required for: Assistant Executive Engineer,
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Name of the Agency/Contractor*: M/s KRIDL, Bangalore.

RESULTS OF COMPRESSIVE STRENGTH ON CEMENT CONCRETE CUBE SPECIMENS

Dimensions of Specimen : 150 X 150 X 150mm
Grade of Concrete* : M_{30}

TABLE 1.1:

Sl No	Location/ Identification*	Date of Casting*	Date of Testing	Age in Days	C/S Area in mm^2	Maximum Load in K.N	Compressive Strength (N/mm^2)	Avg. Value
1	001	02-12-19	09-12-19	07	22500	520	23.11	23.04
	002	"	"	"	"	525	23.33	
	003	"	"	"	"	510	22.67	

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